

Diesel Aftermarket Parts Discussion SEMA 2010

United States Environmental Protection
Agency

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The Clean Air Act

- The Clean Air Act (CAA) was enacted by Congress in 1970, and amended in 1977 and 1990.
- Title II of the CAA – Mobile Source Provisions
 - On-highway (motor vehicles and motor vehicle engines) and nonroad (nonroad vehicles and nonroad engines) are regulated.
 - Today's discussion is limited to motor vehicles.
 - Motor Vehicle is “any self-propelled vehicle designed for transporting persons or property on a street or highway.”
CAA § 216(2)
- CAA § 203 contains the following prohibitions (among others) for which EPA may seek injunctive relief (remedy) and a penalty.

CAA Title II Prohibitions: Defeat Devices

- CAA § 203(a)(3)(B), 42 U.S.C. §7522(a)(3)(B): The following acts and the causing thereof are prohibited –
 - To manufacture or sell, or offer to sell, or install, a part for a certified motor vehicle, where
 - A principle effect of the part or component is to bypass, defeat, or render inoperative any emission control device, and
 - The person knows or should know that such part or component is being offered for sale or installed for such use or put to such use.

Diesel Defeat Device Example: DPF Delete Kits

■ 2010 EPA Enforcement Case – Acclaim Fleet and Automotive Services

- Acclaim sold four DPF-R kits and installed three of these kits on certified motor vehicles.
- YouTube video of Acclaim's installation of a DPF-R delete kit was viewed in excess of 40,000 times.
- The function of the DPF-R kit is to allow the removal of the factory-installed emission control system (the diesel particulate filter - DPF) and defeat the on-board diagnostic monitoring of the DPF.
- Acclaim paid a penalty of \$3000 for selling four defeat devices and installing three of them, and was required to recall the four trucks.
- Gear Box Z Inc. of Utah claims it is the manufacturer of the DPF-R delete kit.
- From the Gear Box Z website: "The DPF-R kit is designed to be a fully reversible DPF removal for trucks equipped with DPF filters."

Defeat Device Example: Advanced Fuel Injection Timing

- Computer software that alters diesel fuel injection timing under conditions not substantially represented by the Federal Test Procedure (FTP) is a defeat device.
- 1998 Enforcement Case - Diesel Engine Consent Decrees with Caterpillar, Cummins, Detroit Diesel, Mack, Volvo, Renault, and International (Navistar)
 - Combined civil penalty of more than \$83 million, and
 - Compliance measures in excess of \$1 billion

Other Examples of Defeat Devices

A component or computer code that:

- Causes enrichment for increased power where the code does not activate fully during the FTP, or
- Senses test conditions and changes fuel injection timing when the vehicle is operating off the test cycle, or
- Interferes with the function of the on-board diagnostic system.

CAA Title II Prohibitions: Tampering

- CAA Section 203(a)(3)(A), 42 U.S.C.
§7522(a)(3)(A): Prohibits the following acts:
 - For anyone to remove or render inoperative an emission control component on a certified motor vehicle or engine prior to sale or delivery to ultimate purchaser, or
 - For anyone to knowingly remove or render inoperative any emission control component on a certified motor vehicle or engine after sale and delivery to the ultimate purchaser.

Off Road Use or Race Only Use

- Q1: Am I protected from selling a defeat device or tampering as long as I inform my customers that they can only use my parts “off-road” or “for racing use only” or that the parts are “not for installation on emission-controlled vehicles”?
 - A: No, if the parts are designed for and intended to be installed on certified motor vehicles, EPA considers you to still be liable under the CAA prohibited acts.

EPA Racing Vehicle Determinations

- Racing vehicle: A vehicle which, in general, has been extensively modified for racing, and is incapable of safe and practical street or highway use because it lacks features associated with safe and practical street or highway use. Such features include, but are not limited to, a reverse gear (except in the case of motorcycles), a differential, or other safety features required by state and/or Federal law.
- Not all vehicles used in races are excluded from emissions compliance. Determinations are based on the capability of the vehicle, not its intended use.
- Restrictions: Vehicle may not be registered or licensed for use on or operated on the public roads or highways.
- Reference: <http://www.epa.gov/otaq/imports/420b10027.pdf>
- EPA Contact for Exemptions and Exclusions (Racing and Competition Engines) John LaCroix 734-214-4463.

Application for EPA Racing Exclusion: Required Content

1. Name, address, and daytime telephone number;
2. Vehicle information (make, model, model year and VIN);
3. A list of racing features (features that make the vehicle a racing vehicle);
4. A list of street features that are lacking (features that have been removed or have never been installed that would permit safe driving on streets or highways);
5. At least four photographs showing the front, rear, and each side view; and if a vehicle with an interior, photographs of the interior;
6. The name of the sanctioning body and competition class;
7. A schedule of racing events, including dates and locations where the vehicle will participate;
8. A copy of the competition racing license; and
9. Other proof that the vehicle cannot be used on streets and highways, such as a letter from a state's Department of Motor Vehicles (DMV) that explains the vehicle cannot be licensed for use on public roads, and explains why it cannot be licensed.

EPA's 1991 Exhaust System Repair Guidelines

- Issued to reflect the change to the tampering prohibitions in the 1990 Clean Air Act Amendments
- Still in Effect

“Question: Can I remove a converter from a vehicle that is used only for "off-road" driving?

Answer. No. The tampering prohibition discussed in Answer 1 applies to this situation as well. The federal tampering prohibition pertains to "motor vehicles," which are defined by section 216(2) of the Act as "any self-propelled vehicle[s] designed for transporting persons or property on a street or highway." ...It is not legal for anyone to "de-certify" a motor vehicle for "off -road" use.”

Memo 1A (Tampering Enforcement Policy)

- Interim Tampering Enforcement Policy
Memorandum 1A- (6/25/74) – (Memo 1A)
- Memo 1A allows the sale and use of aftermarket parts when an individual or company has a “reasonable basis” to believe their actions do not cause emission problems.

Memo 1A Requirements

- In order to protect yourself from a charge of tampering if you install non-equivalent aftermarket parts, you should have in your records:
 - Emission test results from tests conducted in accordance with EPA's federal test procedure (FTP) using the correct test cycle showing that essentially similar vehicles meet the standards for the remainder of the vehicles' useful lives using your device *or*
 - An EPA Aftermarket Parts Certificate issued for the same part and covering the same vehicles on which you install the device.
 - Generally, the testing required for a CARB EO is the same as the testing required under Memo 1A because the test procedures are usually the same.

Memo 1A (Continued)

- EPA issues no approvals under Memo 1A.
- Reasonable Basis is defined as:
 - No increase in emissions for equivalent, but non-OEM parts, or
 - Vehicles or Engines still meet the emissions standards when tested on the Federal Test Procedure (FTP) for add-on parts or out-of-spec adjustments.

On-Line References

- General EPA mobile source guidance: www.epa.gov/otaq
- EPA air enforcement guidance:
<http://cfpub.epa.gov/compliance/resources/policies/civil/caa/>
- Electronic Code of Federal Regulations (EPA is Title 40)
<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=%2Findex.tpl>
- Fact Sheet: Don't tamper with emission controls
<http://www.epa.gov/compliance/resources/policies/civil/caa/mobile/donttamper.pdf>
- Fact Sheet: Exhaust System Repair Guidelines
<http://www.epa.gov/compliance/resources/policies/civil/caa/mobile/exhsysrepair.pdf>
- Interim Tampering Enforcement Policy (Memo 1A)
<http://www.epa.gov/compliance/resources/policies/civil/caa/mobile/tamper-memo1a.pdf>
- EPA Kit Car Policy <http://www.epa.gov/otaq/imports/kitcar.htm>

On-Line References (Continued)

- VPCD 98-13 Heavy Duty Diesel Engines Controlled by Onboard Computers: Guidance on Reporting and Evaluating Auxiliary Emission Control Devices and the Defeat Device Prohibition of the Clean Air Act
http://www.epa.gov/dis/display_file.jsp?docid=14148&flag=1
- What You Should Know About Using, Installing, or Buying Aftermarket Catalytic Converters
<http://www.epa.gov/otaq/cert/factshts/catcvrts.pdf>
- Sale and Use of Aftermarket Catalytic Converters
<http://www.epa.gov/compliance/resources/policies/civil/caa/mobile/amccpolicy.pdf>
- EPA Advisory Circulars
http://www.epa.gov/dis/publist_gl.jsp?guideyear=All%20Years